

AMENDMENTS TO THE CLAIMS

Listing of Claims:

1. (Cancelled)
2. (Currently Amended) A liquid, 100 % solids, non-self fluxing, one-part underfill composition, consisting essentially of comprising:
 - from 5% to 30% by weight of a monofunctional unsaturated photocurable component,
 - from 10% to 45% by weight of a polyfunctional epoxy resin,
 - from 0.3% to 3% by weight of at least one photoinitiator,
 - from 40% - 70% by weight of a non-electrically conductive filler,said underfill in the thermoset state exhibiting a flexural modulus of from 1000 to 5000 MPa at 20 °C, and a coefficient of thermal expansion below its glass transition temperature of from 15 to 50 ppm/°C.
- 3 – 6 (Cancelled)
7. (NEW) The underfill composition according to claim 2 wherein said photocurable component includes ethylenic unsaturated monomer or mixture of monomers having at least 6 carbon atoms.
8. (NEW) The underfill composition according to claim 7 wherein said ethylenic unsaturated monomer or mixture of monomers are selected from the group consisting of vinyl esters, vinyl ethers, α,β - unsaturated acrylate esters, and their mixtures thereof.

9. (NEW) The underfill composition according to claim 8 wherein said photocurable components are ethylenically unsaturated acrylate monomers or unsaturated oligomers and combinations thereof.

10. (NEW) The underfill composition according to claim 9 wherein said photocurable components ethylenically unsaturated acrylate monomers includes at least one compound from the group consisting of C3-C12 alkyl esters of acrylic acid and C1-C4 alkyl-substituted C3-C12 ester of acrylic acid.

11. (NEW) The underfill composition according to claim 10 wherein said ethylenically unsaturated acrylate monomers include at least one compound selected from the group consisting of butylacrylate, ethylmethacrylate, butylmethacrylate, t-butyl methacrylate, cyclohexyl methacrylate, trimethylcyclohexylmethacrylate, cyclic ether acrylates, monocyclic acetal acrylate, acetoacetoxyethyl methacrylate, 2- acetoacetoxyethyl acrylate, 2- acetoacetoxypropyl methacrylate, 2- acetoacetoxypropyl acrylate, 2- acetoacetamidoethyl methacrylate, 2- acetoacetamidoethyl acrylate, 2- cyanoacetoxyethyl methacrylate, 2- cyanoacetoxyethyl acrylate, N(2- cyanoacetoxyethyl) acrylamide, 2- propionylacetoxyethyl acrylate, N(2- propionylacetoxyethyl) methacrylamide, N-4- (acetoacetoxybenzyl) phenylacrylamide, ethylacryloyl acetate, acryloylmethyl acetate, N- ethacryloyloxymethylacetoacetamide, ethylmethacryloyl acetoacetate, N- allylcianoacetamide, methylacryloyl acetoacetate, N(2- methacryloyloxymethyl) cyanoacetamide, ethyl-a-acetoacetoxy methacrylate, Nbutyl-N- acryloyloxymethylacetoacetamide, monoacrylated polyols, monomethacryloyloxymethyl phthalate, and their mixtures thereof.

12. (NEW) The underfill composition according to claim 9 wherein said unsaturated oligomers contain at least one pendant or terminal ethylenic unsaturated group.

13. (NEW) The underfill composition according to claim 12 wherein said unsaturated oligomers contain two terminal unsaturated groups.

14. (NEW) The underfill composition according to claim 12 wherein said unsaturated oligomers have an average number of one to two unsaturated groups when said unsaturated oligomers have a molecular weight from 500 to 3000.

15. (NEW) The underfill composition according to claim 14 wherein said unsaturated oligomers are said photocurable component is an unsaturated oligomer selected from the group consisting of bis-phenol-polyether acrylates, vinylether capped oligomer, acrylated epoxy resin, ethylenically unsaturated polyalkylethers, poly(cyclic) ether acrylates, polycyclic (ether) acetal acrylate, urethane acrylate oligomer, and their mixtures thereof.